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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,205	12/02/2003	Bridget Mary Pantaleo	67389-034	4686

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WASHINGTON, DC 20005-3096

EXAMINER
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HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



<b>Office Action Summary</b>	<b>Application No.</b> 10/725,205	<b>Applicant(s)</b> PANTALEO ET AL.	
	<b>Examiner</b> Michael C. Heck	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.  
2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-56 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 March 2005 has been entered.
2. The following is a First Office Action in response to the request for continued examination. Claims 1, 22 and 41 have been amended. Claims 1-56 are pending in this application and have been examined on the merits as discussed below.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 22 and 41 have been considered but are moot in view of the new ground(s) of rejection.
4. The Examiner apologizes for any miscommunications; however, the intent of the communication on 08 March 2005 was to convey to the applicant that to overcome the 35 U.S.C. 101 rejection was to specifically identifying which step or steps are machine implemented. The Examiner recommends that the applicant consider using a computer to identify, access, calculate, determine, and/or generate in a non-trivial manner as indicated in the method steps of claim 1, whereby it is clear which particular step is employing technology to perform the method step.



***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-21** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim limitation of "wherein at least one of the steps is machine-implemented" when applied to the steps of claim 1 result in a trivial usage of technology, therefore is deemed non-statutory. The Examiners has given the words of the claim their "plain meaning" since the specification does not define a machine, or the steps of being machine-implemented. Therefore, a machine that is used to implement any of the steps of claim 1 can be any machine. For example, generating a capacity report based on the work volume and the staff availability can simply be someone using a typewriter to type a report. This use of a typewriter would not be a new process, machine, manufacture, or composition of matter as required by 35 U.S. C. 101, therefore, would be non-statutory. As can be seen, performance of certain steps of claim 1 by a machine is nominal while performance of other core steps (e.g., calculating) by a machine would be statutory. However, since the limitation of "wherein at least one of the steps is machine-implemented" does not limit the machine implementation to the core step(s), the claim as a whole is non-statutory. The Examiners also notes that the phrase "machine-implemented" is vague as opposed to the preferred phrase "machine-executed".

**Claims 41-56** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The preamble of the claim states, "A program



comprising instructions, which may be embodied in a machine-readable medium...". The Examiner interprets the use of the word "may" to be a conditional phrase, in which the claim can be "A program comprising instructions..." or "A program comprising instructions embodied in a machine-readable medium...". As such, the option of "A program comprising instructions..." is merely a computer program or a set of instructions capable of being executed on a computer. Since the computer program itself is not a process, the program comprising instructions is considered nonstatutory functional descriptive material since they are not capable of causing functional change in the computer. *Warmerdam 33 F.3d at 1361. 31 USPQ2d at 1760.*

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-6, 9, 11, 15-16, 20-27, 30-31, 33, 37-45, 47, 49 and 53-56** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (Davis, How CTI is Changing Workforce Management: What are the Possibilities for your Call Center?, Telemarketing & Call Center Solutions, Vol. 14, Issue 8, February 1996, start p. 74 [PROQUEST]) in view of Zweben et al. (U.S. Patent 6,216,109). Davis discloses a capacity planning method and system comprising:



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- **[Claim 1]** identifying each of a plurality of tasks (Para 1-4, Davis teaches CTI (computer-telephony integration) will become the tool to help call centers: 1) provide the right number of telephone sales representatives (TSRs) with the right skills and attitudes to meet caller demand in every period of the day, and 2) ensure each TSR is productive and performing at a high level of quality. CTI introduces a greater degree of sophistication to workforce management by allowing more accurate targeting of incoming calls to specific TSRs (telephone service representatives) with specialized knowledge or skills.);
- identifying the subtasks associated with each of the plurality of tasks (Para 20, Davis teaches scheduling TSRs to include determining when breaks and lunches occur and when TSRs perform tasks other than answering calls (for example, outbound calling, training, meeting, research). The examiner interprets research as a subtask associated with a task.);
- accessing production rate information related to the amount of time or the number of staff needed to perform each of the identified subtasks (Para 19, Davis teaches the first step in capacity management involves forecasting call volume, call handling times and TSR staffing levels required by interval (for example every half hour) for each TSR group. Workforce management systems can track years of history and perform the necessary calculations to help managers forecast accurately);
- calculating a work volume based on the identified subtasks and the production rate information (Para 22, Davis teaches predicting the number of TSRs required for the next few hours, based upon actual caller behavior);
- accessing staff information (Para 20, Davis teaches scheduling TSRs to includes determining when shifts start and end, when breaks and lunches occur. The examiner interprets the above information as staff information.);
- determining staff availability based on the staff information (Para 22, Davis teaches workforce management systems provide tools to compare actual TSR availability to the schedule); and
- generating a capacity report based on the work volume and the staff availability (Para 23, Davis teaches workforce management systems provide extensive reporting that allows managers to compare reality to plans),
- Wherein at least one of the steps is machine-implemented (Para 1 and 7, Davis teaches computer-telephony integration (CTI) that links call center systems with computers and customers.).



Davis fails to teach wherein each respective task is associated with subtasks that are needed to perform the respective task. Zweben et al. teach a schedule for a complex activity is obtained by a scheduling system using a method of constraint-based iterative repair. A predetermined initial schedule is iteratively repaired, repairs being made during each iteration only to portions of the schedule that produce a constraint violation. A resource constraint states that the resource must not be over-allocated during the duration of the resource requirement, i.e., there must be an adequate amount of the resource in the resource pool to satisfy the resource requirement during the entire duration. A preemptive constraint can cause a task to be split into subtasks. (For instance, the 16-hour task is split into two 8-hour subtasks.) Resource and state constraints can be enforced only during each individual subtask or during the entire time interval spanning from the beginning of the earliest subtask to the end of the latest subtask. In the former case, the constraints are ignored during the periods between the subtasks. However, in the latter case, the constraints are enforced during periods between subtasks. For example, a labor constraint typically would not be enforced during the periods between subtasks, since people are mobile and can easily move to another location for work on a task at that other location. On the other hand, an allocation of heavy machinery to a task may result in the constraint associated with the allocation being enforced during the periods between subtasks (Abstract, col. 15, lines 44-60, and col. 16, lines 52-67). It would have been obvious to one of ordinary skill in the art to utilize the task/subtask relationship of Zweben et al. with the teachings of Davis since Davis teaches capacity management to forecast demand and schedule



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agents by taking into account shift start and end, breaks and lunches, and when TSR's perform tasks other than answering calls, such as outbound calling, training, meetings, and research (Para 19-20). Being able to quickly and accurately schedule complex activity while taking into consideration the entire breathe of job activities to be performed allows for greater customer and employee satisfaction. Both Davis and Zweben et al. teach capacity planning. Zweben et al. teach that since in the real world, rescheduling must typically be done often to respond to changing conditions, a better scheduling approach is needed, one that integrates the resolution of capacity and inventory constraints, that minimizes the disturbances by rescheduling and that produces a revised schedule quickly (col. 5, lines 16-23). Davis teaches adjusting in real time. To attain "just right" staffing requires adjustments in real-time according to real circumstances (Para 21). The problem being solved by Davis and Zweben et al. is how to take into consideration all the variables in generating a schedule and accurately come to a solution that matches the demand in a quick manner so managers can respond to the every changing requirement. Therefore, Davis in combination with Zweben et al. will have a reasonable expectation of success since they are trying to solve the same problem. Therefore, real-time flexible and accurate scheduling will lead to customer and employee satisfaction.

- **[Claim 2]** the production rate information includes the amount of time needed to perform respective identified subtasks (Davis: Para 5, 19 and 20, Davis teaches managers need to know how many minutes of each particular skill or knowledge is needed every half-hour. Forecasting demand includes call-handling times and TSR staffing levels required by interval. Scheduling TSRs include determining when TSRs perform tasks other than answering calls. Zweden et al.: col. 16, lines 39-59, Zweden et al. teach a preemptive



- constraint is a limitation on the metric time during which a task can be performed. A preemptive constraint can cause a task to be split into subtasks.).
- **[Claim 3]** the production rate information includes the number of each identified subtasks that can be performed per one time unit (Davis: Para 4, 19 and 20, Davis teaches CTI allows more accurate targeting of incoming calls to specific TSRs with specialized knowledge or skills. Capacity management involves forecasting TSR staffing levels required by interval (for example, every half hour) for each TSR group and then scheduling the TSRs. Zweden et al.: col. 16, lines 39-59, Zweden et al. teach a preemptive constraint is a limitation on the metric time during which a task can be performed. A preemptive constraint can cause a task to be split into subtasks.).
  - **[Claim 4]** the time unit is an hour (Davis: Para 22, Davis teaches the workforce management system provides tools to predict the number of TSRs required for the next few hours).
  - **[Claim 5]** the production rate information is obtained from a database or by observation (Davis: Para 19, Davis teaches workforce management systems can track years of history. Implicitly, a database is used.).
  - **[Claim 6]** the work volume is calculated as the number of time units needed to perform the identified subtasks (Davis: Para 19, Davis teaches capacity management involves forecasting call volume, call handling times and TSR staffing levels required by interval (for example every half hour) for each TSR group. Workforce management systems tracks years of history and performs the necessary calculations to help managers forecast accurately. Zweden et al.: col. 16, lines 39-59, Zweden et al. teach a preemptive constraint is a limitation on the metric time during which a task can be performed. A preemptive constraint can cause a task to be split into subtasks.).
  - **[Claim 9]** the staff information includes at least one of information related to the number of employees, capability of a specific employee to perform the subtasks, information related to exempt status of employees, information related to staff outage, information related to work time that cannot be used to perform the subtasks, and information related to business days within a specific period of time (Davis: Para 16, Davis teaches workforce management systems help managers determine the number of TSRs needed to meet anticipated calling demand effectively and affordably).
  - **[Claim 11]** the step of calculating extended staff availability by considering extended work hours; and wherein the capacity report is generated further based on the extended staff availability (Davis: Para 23, Davis teaches



workflow management systems provide extensive reporting that allows managers to compare reality with plans to include answering questions such as how well did we do in adjusting our schedule to respond to what actually happened during the day.).

- **[Claim 15]** the work volume is calculated as the amount of time needed to perform the subtasks; and the staff availability is calculated as the total amount of time that employees can perform the subtasks within a specific period of time (Davis: Para 20, Davis teaches management involves scheduling TSRs – determining when shift start and end, when breaks and lunches occur and when TSRs perform tasks other than answering calls. Good workforce management systems offer sophisticated algorithms that factor individual TSR availabilities and work shift preferences into schedule development.).
- **[Claim 16]** the total amount of time that employees can perform the subtasks within the specific period of time is calculated by using the equation of: (the number of employees) · (the number of standard work hours per day) · (the number of business days within the specific period of time) - (the amount of time lost due to staff outage within the specific period of time) - (the amount of work time that cannot be used to perform the subtasks within the specific period of time) (Davis: Para 20 and 21, Davis teaches scheduling agents. Scheduling TSRs involves determining shift start and end, when breaks and lunches occur and when TSRs perform task other than answering calls (for example, outbound calling, training, meeting, research). Forecasting and scheduling are performed days or weeks in advance. Inherently, the equation is used to schedule the number of TSRs required to handle the forecasted demand.).
- **[Claim 20]** the staff availability is calculated based on at least one of the number of employees, the information related to staff outage, the information related to the amount of work time that cannot be used to perform the subtasks, the information related to business days, and the amount of defined work hours per day (Davis: Para 20 and 21, Davis teaches scheduling agents. Scheduling TSRs involves determining shift start and end, when breaks and lunches occur and when TSRs perform task other than answering calls (for example, outbound calling, training, meeting, research). Forecasting and scheduling are performed days or weeks in advance. Inherently, the forecast and schedule are calculated.).
- **[Claim 21]** the information related to the amount of work time that cannot be used to perform the subtasks depends on at least one of the position, the identity, the exempt status, the handling capability, and the outage status of the respective employee (Davis: Para 20 and 21, Davis teaches scheduling



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agents. Scheduling TSRs involves determining shift start and end, when breaks and lunches occur and when TSRs perform task other than answering calls (for example, outbound calling, training, meeting, research). Forecasting and scheduling are performed days or weeks in advance.).

- **[Claim 31]** wherein the staff information and the information related to the plurality of task are obtained from at least one of the data storage device and a remote data processing system connected to the data processing system via a network (Zweben et al.: col. 9, lines 30-46 and col. 10, lines 7-18. Zweben et al teach the memory device stores information used by the processing device. For example the memory device stores a set of constraints, and a penalty and weight for each constraint. Each repair method is associated with one or more constraints. The initial schedule is supplied to the internal memory device from an external memory device that is part of the system.).

**Claims 22-27, 30, 33, 37-45, 47, 49 and 53-56** substantially recites the same limitations as that of claims 1-6, 9, 11, 15-16 and 20-21 with the distinction of the recited method being a system and a program. Hence the same rejection for claims 1-6, 9, 11, 15-16 and 20-21 as applied above applies to claims 22-27, 30, 33, 37-45, 47, 49 and 53-56.

8. **Claims 7-8, 10, 19, 28-29, 32, 46 and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (Davis, How CTI is Changing Workforce Management: What are the Possibilities for your Call Center?, Telemarketing & Call Center Solutions, Vol. 14, Issue 8, February 1996, start p. 74 [PROQUEST]) in view of Zweben et al. (U.S. Patent 6,216,109), as applied to claims 1, 9, 18, 22, 30 and 41 above, and further in view of Reynolds (Reynolds, Automating for Better Workforce Management, Call Center Solutions, March 1999, p. 74-80 [PROQUEST]). As to **claim 7**, Davis and Zweben et al. disclose a capacity planning method and system but failed to teach the work volume is calculated as the number of fulltime employees needed to perform the



identified subtasks, based on standard work hours per day. Reynolds teaches a telephone traffic engineering technique is used to determine the required number of staff based on the forecast workload. "Bodies in chairs" staff requirements along with nonproductive time estimates (for breaks, training, meetings, etc.) are used to determine a scheduling requirement for each half-hour or quarter hour period. A set of optimal schedules is then created based on these requirements and a call center's unique scheduling rules and constraints. These schedules are then assigned to staff based on shift bid rules and employee preferences. The savings associated with more efficient scheduling can take many forms, including reduced overall staff hours, reduced need for overtime and identification of overstaffed periods (p. 76-77). The examiner interprets standard work hours per day per staff member is used since overtime avoidance is a factor in calculating savings. It would have been obvious to one of ordinary skill in the art to include the calculated staffing requirements of Reynolds with the teachings of Davis and Zweben et al. because Davis teaches workforce management system provide the right number of telephone sales representatives with the right skills and attitudes to meet caller demand in every period of every day (Para 1 and 2). Meeting customer demands to ensure customer satisfaction at minimal cost is a goal for profit-oriented companies. Matching and scheduling the right resources with the customer demand ensures the customers requirements will be met, therefore, minimizing cost and ensuring customer satisfaction.

- **[Claim 8]** the standard work hours per day are configurable (Davis: Para 20, Davis teaches the second step in capacity management involves scheduling TSRs – determining when shift starts and end, when breaks and lunches occur and when TSRs perform tasks other than answering calls. Zweben et



al.: col. 16, lines 39-51, Zweben et al. teach a preemptive constraint is a limitation on the metric time during which a task can be performed. For example, a preemptive constraint may specify that no task are to be performed on a weekend day, or a preemptive constraint may specify that a task be performed during a particular work shift of a work day.).

- **[Claim 10]** the information related to the number of employees includes at least one of the number of full-time employees, the number of other types of employees, the total hours worked by other types of employees expressed as a full-time employee equivalent; and the other types of employees include at least one of part-time employees, temporary employees, interns, and borrowed staff (Davis: Para 12, Davis teaches answering the question of whether or not the manager will have enough TSRs to answer the calls. Reynolds: P. 76, Table 1 and 3, Reynolds teaches a mixture of full- and part-time staff and shows the staff cost savings and annual staff cost.).
- **[Claim 19]** the capacity report includes a cost analysis (Reynolds: Table 1, 2, 3, and 4, Reynolds teaches calculating savings.).

**Claims 28-29, 32, 46 and 48** substantially recite the same limitations as that of claims 7-8 and 10 with the distinction of the recited method being a system and a program. Hence the same rejection for claims 7-8 and 10 as applied above applies to claims 28-29, 32, 46 and 48.

9. **Claims 12-13, 17-18, 34-35 and 50-51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (Davis, How CTI is Changing Workforce Management: What are the Possibilities for your Call Center?, Telemarketing & Call Center Solutions, Vol. 14, Issue 8, February 1996, start p. 74 [PROQUEST]) in view of Zweben et al. (U.S. Patent 6,216,109) and further in view of Randhawa et al. (Randhawa et al., A Microcomputer-based Data Management and Capacity-planning System, International Journal of Operations & Production Management, Vol. 10, Issue 5, 1990, p. 52-61 [EBSCO]). As to **claim 12**, Davis and Zweben et al. disclose a capacity planning



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method and system but fail to teach the extended staff availability is calculated based on a plurality of overtime scenarios or a plurality of expanded staff scenarios. Randhawa et al. teach the scheduling module enables users to interactively change the initial schedule to achieve a balance workload over the specified time horizon (p. 55). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the interactive change capability of Randhawa et al. with the teachings of Davis and Zweben et al. since Davis teaches by integrating CTI technology with an effective workforce management system and ensuring the system is properly planned, implemented and affordable, call center managers can ensure they will have enough TSRs to answer calls, ensure the TSRs have the proper skills, and ensure the TSRs will be in the proper frame of mind (Para 12-13). Meeting customer demands to ensure customer satisfaction at minimal cost is a goal for profit-oriented companies. Matching and scheduling the right resources with the customer demand ensures the customers requirements will be met, therefore, minimizing cost and ensuring customer satisfaction.

- **[Claim 13]** the capacity report is generated based on a first comparison between the work volume and the staff availability, and a second comparison between the work volume and the extended staff availability (Randhawa et al.: p. 55, Randhawa et al. teach the scheduling module produces graphs and reports for the schedules that are generated).
- **[Claim 17]** the step of calculating extended staff availability by considering extended work hours; and wherein the capacity report is generated further based on the extended staff availability (Randhawa et al.: p. 55, Randhawa et al. teach the scheduling module enables users to interactively change the initial schedule to achieve a balance workload over the specified time horizon. The scheduling module produces graphs and reports for the schedules that are generated).



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- **[Claim 18]** the extended staff availability is calculated based on a plurality of over time scenarios or on a plurality of expanded staff scenarios (Randhawa et al.: p. 55, Randhawa et al. teach the scheduling module enables users to interactively change the initial schedule to achieve a balance workload over the specified time horizon.).

**Claims 34-35 and 50-51** substantially recite the same limitations as that of claims 12-13 with the distinction of the recited method being a system and a program. Hence the same rejection for claims 12-13 as applied above applies to claims 34-35 and 50-51.

10. **Claims 14, 36 and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (Davis, How CTI is Changing Workforce Management: What are the Possibilities for your Call Center?, Telemarketing & Call Center Solutions, Vol. 14, Issue 8, February 1996, start p. 74 [PROQUEST]) in view of Zweben et al. (U.S. Patent 6,216,109) and in view of Randhawa et al. (Randhawa et al., A Microcomputer-based Data Management and Capacity-planning System, International Journal of Operations & Production Management, Vol. 10, Issue 5, 1990, p. 52-61 [EBSCO]) as applied to claim 1. As to **claim 14**, the examiner takes Official Notice that the step of generating warnings based on the first comparison and the second comparison. For example, in generating an EXCEL spread sheet, a user can identify a calculation and highlight areas of concern by having the spreadsheet indicate the results in a different color, therefore, alerting the user that an issue may exist or a decision point has been reached. It would have been obvious to one of ordinary skill in the capacity planning art to use the alert system of EXCEL with the teachings of Davis, Zweben et al., Reynolds, and Randhawa et al. since Randhawa et al. teach interactively changing the initial



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schedule to achieve a balance workload (p. 55). Capacity planning understands demand versus resources and allows the user to plan ahead to balance the load. Unbalanced situation require action whether they be on the demand or resource side of the equation. Visibly highlighting the variances alerts the user that action is required, therefore, ensuring the user can accurate plan ahead for a balance load.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Miller (U.S. Patent 6,101,481) discloses a task management system.



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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael C. Heck whose telephone number is (571) 272-6730. The Examiner can normally be reached Monday thru Friday between the hours of 8:30am - 4:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (571) 273-6729.

Any response to this action should be mailed to:

**Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450**

Or faxed to:

<b>(703) 872-9306</b>	[Official communications; including After Final communications labeled " <b>Box AF</b> "]
<b>(571) 273-6730</b>	[Informal/Draft communication, labeled " <b>PROPOSED</b> " or " <b>DRAFT</b> "]

mch  
20 May 2005

  
**TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600**